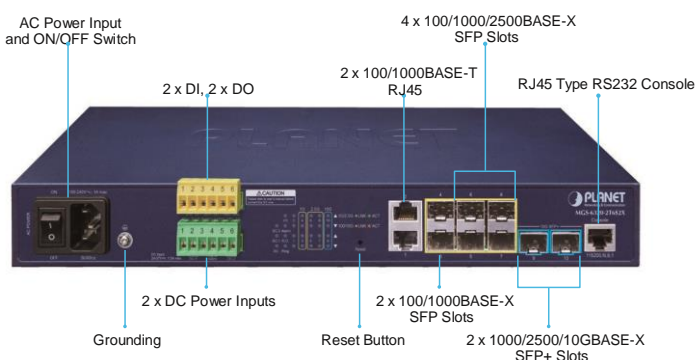


L3 2-Port 100/1000T + 2-Port 100/1000X SFP + 4-Port 2.5G SFP + 2-Port 10G SFP+ Metro Ethernet Switch



Multi-gigabit SFP/SFP+ Fiber Port Switch for Growing Long-Reach Networking of Enterprises, Telecoms and Campuses

PLANET MGS-6320-2T6S2X Layer 3 Managed Metro Ethernet Switch supports both IPv4 and IPv6 protocols and **Layer 3 OSPFv2/v3 dynamic routing and static routing**, and provides **2 100/1000Mbps TP ports**, **2 100/1000Mbps dual speed SFP fiber ports**, **4 100/1000/2500Mbps SFP ports** and **2 1G/2.5G/10Gbps SFP+ ports** delivered in a rugged strong case. It is capable of providing non-blocking switch fabric and wire-speed throughput as high as **68Gbps** in the temperature range from **-10 to 60 degrees C** without any packet loss and CRC error, which greatly simplify the tasks of upgrading the enterprise LAN for catering to increasing bandwidth demands. With such a favorable data link capability, hardware-based Layer 3 routing performance, Layer 2 and Layer 4 switching engine and user-friendly yet advanced IPv6/IPv4 management interfaces, the MGS-6320-2T6S2X is specially designed for service providers to deliver profitable long-distance Ethernet network and adopts "Front Access" design, making the wiring and maintenance of the MGS-6320-2T6S2X placed in a cabinet very easy for technicians.



Flexible and Extendable 10Gb Ethernet Solution

10G Ethernet is a big leap in the evolution of Ethernet. Each of the 10G SFP+ slots in the MGS-6320-2T6S2X supports **triple speed and 10GBASE-SR/LR or 2500BASE-X and 1000BASE-SX/LX**. With its 2-port, 10G Ethernet link capability, the administrator now can flexibly choose the suitable SFP/SFP+ transceiver according to the transmission distance or the transmission speed required to extend the network efficiently. The MGS-6320-2T6S2X provides broad and powerful processing capacity

Physical Port

- 2-port 100/1000BASE-T RJ45 copper (Port 1 to port 2)
- 2-port 100/1000BASE-X SFP (Port 3 to port 4)
- 4-port 100/1000/2500BASE-X SFP (Port 5 to port 8)
- 2-port 1G/2.5G/10GBASE-X SFP+ (Port 9 to port 10)
- One RJ45 console interface for basic management and setup

Redundant Power System

- Redundant Power System: 100V ~ 240V AC/Dual 24V ~ 57V DC
- Active-active redundant power failure protection
- Backup of catastrophic power failure on one supply
- Fault tolerance and resilience

Digital Input / Digital Output

- 2 Digital Input (DI)
- 2 Digital Output (DO)
- Integrates sensors into auto alarm system
- Transfer alarm to IP network via SNMP trap
- Industrial Protocol

Hardware Design

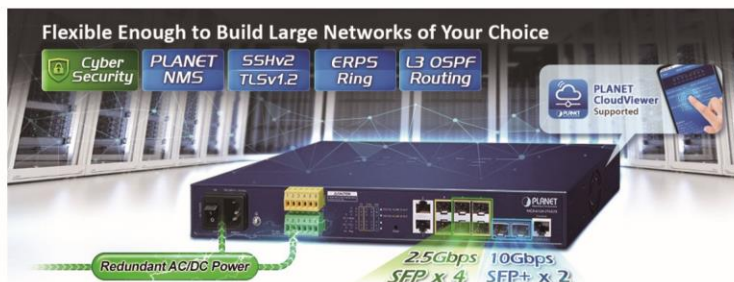
- -10 to 60 degrees C operating temperature for DC power input only
- 13-inch desktop size, 19-inch rack-mountable
- Relay alarm for port breakdown, power failure

Layer 3 IP Routing Features

- Pv4 dynamic routing protocol supports RIPv2 and OSPFv2 and IPv6 OSPFv3
- IPv6 dynamic routing protocol supports OSPFv3
- IPv4/IPv6 hardware static routing
- Routing interface provides per VLAN routing mode

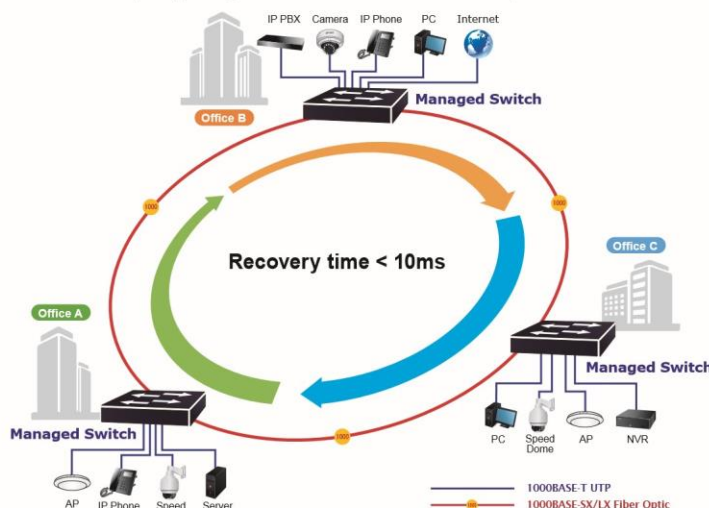
Layer 2 Features

- Storm Control support
 - Broadcast / Multicast / Unicast
- Supports **VLAN**
 - IEEE 802.1Q tagged VLAN
 - Up to 4K VLANs groups, out of 4094 VLAN IDs
 - Supports provider bridging (VLAN Q-in-Q, IEEE 802.1ad)
 - Private VLAN Edge (PVE)
 - Port Isolation
 - MAC-based VLAN



Redundant Ring, Fast Recovery for Critical Network Applications

The MGS-6320-2T6S2X supports redundant ring technology and features strong, rapid self-recovery capability to prevent interruptions and external intrusions. It incorporates advanced ITU-T G.8032 ERPS (Ethernet Ring Protection Switching) technology and Spanning Tree Protocol (802.1w RSTP) into customer's network to enhance system reliability and uptime in harsh environments. In a certain simple Ring network, the recovery time could be less than 10ms to quickly bring the network back to normal operation.



AC and DC Redundant Power to Ensure Continuous Operation

To enhance the operation reliability and flexibility, the MGS-6320-2T6S2X is equipped with one 100 ~ 240V AC power supply unit and two additional 24 ~ 57V DC power input connectors for redundant power supply installation. The Redundant Power Systems are specifically designed to handle the demands of high tech facilities requiring the highest power integrity. Furthermore, with the 24~ 57V DC power supply implemented, the MGS-6320-2T6S2X can be applied as the telecom level device that could be located in the electronic room.

Digital Input and Digital Output for External Alarm

The MGS-6320-2T6S2X supports Digital Input, and Digital Output on the front panel. The external alarm offers technicians the ability to use **Digital Input** to detect, and log external device status (such as door intrusion detector) for the alarm as **Digital Output** could be used to alarm if the MGS-6320-2T6S2X has port link down, link up or power failure.

- IP Subnet-based VLAN
- Protocol-based VLAN
- VLAN Translation
- Voice VLAN
- GVRP
- Supports **Spanning Tree Protocol**
 - STP, IEEE 802.1D Spanning Tree Protocol
 - RSTP, IEEE 802.1w Rapid Spanning Tree Protocol
 - MSTP, IEEE 802.1s Multiple Spanning Tree Protocol, spanning tree by VLAN
 - BPDU Filtering/BPDU Guard
- Supports **Link Aggregation**
 - 802.3ad Link Aggregation Control Protocol (LACP)
 - Cisco ether-channel (Static Trunk)
 - Maximum 5 trunk groups, up to 10 ports per trunk group
- Provides port mirror (many-to-1)
- Port mirroring to monitor the incoming or outgoing traffic on a particular port
- Loop protection to avoid broadcast loops
- Supports ERPS (Ethernet Ring Protection Switching)
- Compatible with Cisco Uni-directional link detection(UDLD) that monitors a link between two switches and blocks the ports on both ends of the link if the link fails at any point between the two devices
- Link Layer Discovery Protocol (LLDP) and LLDP-MED
- IEEE 1588v2 PTP (Precision Time Protocol) transparent clock mode

Quality of Service

- Ingress Shaper and Egress Rate Limit per port bandwidth control
- 8 priority queues on all switch ports
- Traffic classification
 - IEEE 802.1p CoS
 - IP TOS/DSCP/IP Precedence
 - IP TCP/UDP port number
 - Typical network application
- Strict priority and Weighted Round Robin (WRR) CoS policies
- Supports QoS and In/Out bandwidth control on each port
- Traffic-policing on the switch port
- DSCP remarking

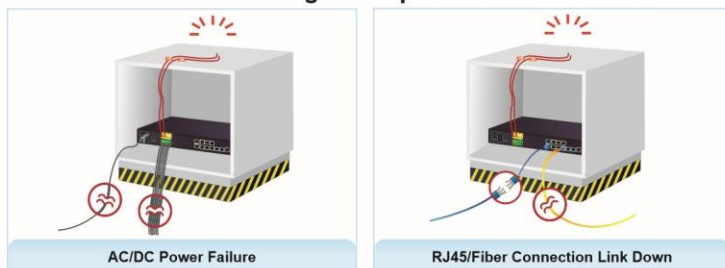
Multicast

- Supports IPv4 IGMP Snooping v1, v2 and v3
- Supports IPv6 MLD Snooping v1 and v2
- Querier mode support

Digital Input



Digital Output



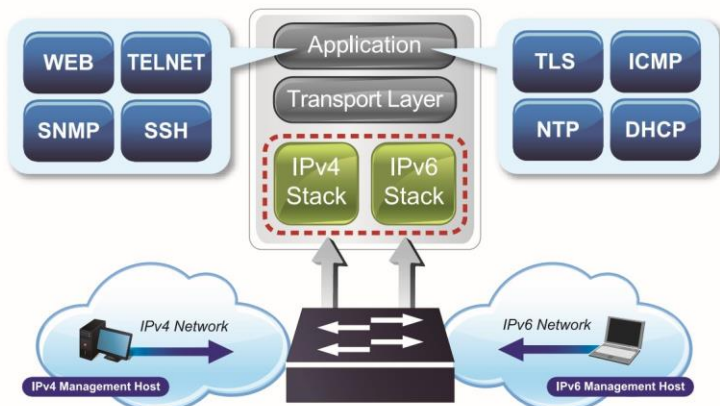
Cybersecurity Network Solution to Minimize Security Risks

The cybersecurity feature included to protect the switch management in a mission-critical network virtually needs no effort and cost to install. Both SSHv2 and TLSv1.2 protocols are utilized to provide strong protection against advanced threats. The network administrator can now construct highly-secure corporate networks with considerably less time and effort than before.



Cost-effective IPv6 Managed Gigabit Switch Solution for Metro Ethernet

To fulfill the demand for ISP to build the IPv6 (Internet Protocol version 6) network infrastructure speedily, the MGS-6320-2T6S2X supports both IPv4 and IPv6 management functions. It can work with original IPv4 network structure and also support the new IPv6 network structure. With easy and friendly management interfaces and plenty of management functions included, the MGS-6320-2T6S2X Metro Ethernet Switch is the best choice for ISP and service providers to build the IPv6 FTTx edge service and for industries to connect with IPv6 network.



- IPv4 IGMP Snooping port filtering
- IPv6 MLD Snooping port filtering
- Multicast VLAN Registration (MVR) support

Security

- Authentication
 - IEEE 802.1x Port-based/MAC-based network access authentication
 - Built-in RADIUS client to co-operate with the RADIUS servers
 - TACACS+ login users access authentication
 - RADIUS/TACACS+ users access authentication
- Access Control List
 - IP-based Access Control List (ACL)
 - MAC-based Access Control List
- Source MAC/IP address binding
- DHCP Snooping to filter un-trusted DHCP messages
- Dynamic ARP Inspection discards ARP packets with invalid MAC address to IP address binding
- IP Source Guard prevents IP spoofing attacks
- IP address access management to prevent unauthorized intruder

Management

- IPv4 and IPv6 dual stack management
- Switch Management Interfaces
 - Web switch management
 - Console/Telnet Command Line Interface
 - SNMP v1 and v2c switch management
 - SSHv2, TLSv1.2 and SNMP v3 secure access
- SNMP Management
 - Four RMON groups (history, statistics, alarms and events)
 - SNMP trap for interface Linkup and Linkdown notification
- IPv6 IP Address/NTP/DNS management
- Built-in Trivial File Transfer Protocol (TFTP) client
- BOOTP and DHCP for IP address assignment
- System Maintenance
 - Firmware upload/download via HTTP
 - Configuration upload/download via HTTP
 - Reset button for system reboot or reset to factory default
 - Dual Images
- DHCP Functions
 - DHCP Relay
 - DHCP Option82
 - DHCP Server
- User Privilege levels control
- NTP (Network Time Protocol)
- UPnP